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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,480	02/18/2004	Kazumi Aoyama	450100-04935	3114

7590 03/29/2007

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EXAMINER	
BUKOWCZYK, JEREMY	
ART UNIT	PAPER NUMBER
3609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,480	AOYAMA ET AL.	
	Examiner	Art Unit	
	Jeremy Bukowczyk	3609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/15/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Galuga et al. (6,035,243).

As per claims 1 and 5, Galuga discloses a robot apparatus (col. 4, line 47) comprising: sensor means for detecting an external (col. 11, lines 47-49) or internal (col. 11, lines 49-52) situation. Galuga further discloses a determination means for determining based on said external or internal situation and a serious level of the external or internal situation (col. 12, lines 34-36) whether to ask for help (col. 12, lines 65-67), the serious level indicating how serious the external or internal situation is for the robot itself (col. 12, lines 60-64). Galuga further discloses an asking action selection means for selecting an action asking for help based on said external or internal situation and said serious level (col. 13, lines 16-22) and making said robot apparatus take the action when said determination means decides to ask for help (col. 13, lines 22-24).

As per claims 3 and 7, Galuga discloses a case where said external or internal situation is a critical situation with a high serious level (col. 13, lines 36-38), said asking action selection means changes a robot mode so as to delay progress of the critical situation when the external or internal situation is not improved after asking for help (col. 13, lines 38-39).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 4, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galuga et al. (6,035,243) in view of Swinson et al. (Jul/Aug 2000).

As per claims 2 and 6, although Galuga discloses all the claimed elements as mentioned in claims 1 and 5, Galuga fails to disclose selecting another action asking for help when said external or internal situation is not improved after an initial ask for help.

Swinson in the same field of invention inherently discloses asking for help when said external or internal situation is not improved after an initial ask for help by stating that a robot will continue asking for help until the robot can autonomously complete the task (2nd paragraph of page 16).

From this teaching of Swinson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the robot apparatus

of Galuga to include selecting another action asking for help when said external or internal situation is not improved after an initial ask for help as taught by Swinson, in order to adapt to the unanticipated circumstances in an unstructured environment (paragraph 2, page 12).

As per claims 4 and 8, Galuga discloses all the claimed elements as mentioned in claims 1 and 5, and a storage means (32). Galuga fails to disclose storing a log of past actions asking for help and their results.

Swinson in the same field of invention discloses storing a log of past actions asking for help and their results (paragraph 6 of page 15).

From this teaching of Swinson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the robot apparatus of Galuga to include selecting another action asking for help when said external or internal situation is not improved after an initial ask for help as taught by Swinson, in order for robots to learn from natural, multimodal interactions with the environment (paragraph 2 of page 12).

6. Although Applicant uses "means for" in the claims 1 and 4 it is the Examiner's position that the "means for" phrases do not invoke 35 U.S.C. §112 6th paragraph. If Applicant concurs, the Examiner respectfully requests Applicant to either amend the claims to remove all instances of "means for" from the claims, or to explicitly state on the record why 35 U.S.C. §112 6th paragraph should not be invoked.

Alternatively, if Applicant desires to invoke 35 U.S.C. §112 6th paragraph, the Examiner respectfully requests Applicant to expressly state their desire on the record.

Upon receiving such express invocation of 35 U.S.C. §112 6th paragraph, the "means for" phrases will be interpreted as set forth in the *Supplemental Examination Guidelines for Determining the Applicability of 35 USC 112 6¶*. (Federal Register Vol. 65, No. 120, June 21, 2000.)

Failure by Applicant in their next response to address the 35 U.S.C. 112 6th paragraph issues in accordance with 37 C.F.R. §1.111(b) or to be non-responsive to this issue entirely will be considered a desire by Applicant *NOT* to invoke 35 U.S.C. §112 6th paragraph. Unless expressly noted otherwise by the Examiner, the preceding discussion on 35 U.S.C. §112 6th paragraph applies to all examined claims currently pending.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Imai discloses a robot that avoids obstacles in memory and asks for help when the robot encounters new obstacles. Wullschleger discloses a method of letting robots ask for help.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Bukowczyk whose telephone number is 571-270-3022. The examiner can normally be reached on Mon-Thu 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on 571-270-3033. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jb

Lynda Jasmin 3/22/07

LYNDA JASMIN
SUPERVISORY PATENT EXAMINER